Patent claims

1. Method for setting up a program-controlled circuit
arrangement (1) with a processor unit (2), an assigned non-
5   volatile start procedure memory (3) and an interface (6)
for connection to a data transmission network (7), whereby
the processor unit (2) is set up in such a way that, after
being switched on, it executes a start procedure stored in
the start procedure memory (3), characterized in that a
10 start procedure is stored in the start procedure memory
(3), which start procedure is set up in such a way that
during its execution the processor unit (2) connects up by
means of the interface (6) to an operating program server
and from this loads operating program instructions into a
15 main memory (5) assigned to the processor unit.

2. Method according to claim 1, characterized in that the
start procedure is set up in such a way that during its
execution the processor unit (2) loads and executes a
20 download procedure from a non-volatile download procedure
memory (4) into the main memory (5), and the download
procedure is set up in such a way that during its execution
the processor unit (2) connects up by means of the
interface (6) to the operating program server and from this
25 loads operating program instructions into the main memory
(5) assigned to the processor unit (2).

3. Method according to claim 1, characterized in that the
circuit arrangement (1) has an exchange arrangement (6) for
30 exchanging data packets within the data transmission
network.

4. Method according to claim 1, characterized in that the circuit arrangement (1) is a circuit for providing a telephone and/or fax service via the data transmission network (7).

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5. Method according to claim 1, characterized in that the start procedure memory (3) is integrated with the processor unit (2) on a semiconductor module (1).

10   6. Method according to claim 1, characterized in that the download procedure memory (4) and the processor unit (2) are integrated in various semiconductor modules and the download procedure is loaded serially from the download procedure memory (4).

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7. Method according to claim 6, characterized in that the download procedure memory (4) is a serial EEPROM.

8. Circuit arrangement with a processor unit (2), an
20   assigned non-volatile start procedure memory (3) and an interface (6) for connection to a data transmission network (7), whereby the processor unit (2) is set up in such a way that it executes a start procedure stored in the start procedure memory (3) after being switched on, characterized
25   in that a start procedure is stored in the start procedure memory (3), which start procedure is set up in such a way that during its execution the processor unit (2) connects up by means of the interface (6) to an operating program server and from this loads operating program instructions
30   into a main memory (5) assigned to the processor unit (2).

9. Circuit arrangement according to claim 8, characterized in that the start procedure is set up in such a way that

during its execution the processor unit (2) loads and
executes a download procedure from a non-volatile download
memory (4), which is connected to the processor unit (2),
into the main memory, whereby the download procedure is set
5   up in such a way that during its execution the processor
unit (2) connects up by means of the interface (6) to the
operating program server and from this loads operating
program instructions into the main memory (5) assigned to
the processor unit (2).

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10. Circuit arrangement according to claim 8, characterized
in that the circuit arrangement has an exchange arrangement
(6) for exchanging data packets within the data
transmission network (7).

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11. Circuit arrangement according to claim 8, characterized
in that the circuit arrangement is a circuit (1) for
providing a telephone and/or fax service via the data
transmission network (7).

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12. Circuit arrangement according to claim 8, characterized
in that the start procedure memory (3) is integrated with
the processor unit (2) on a semiconductor module (1).

25   13. Circuit arrangement according to claim 8, characterized
in that the download procedure memory (4) and the processor
unit (2) are integrated in various semiconductor modules
and the download procedure memory (4) has a serial output
for the download procedure.

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14. Circuit arrangement according to claim 13,
characterized in that the download procedure memory is a
serial EEPROM.

Abstract

Method for setting up a program-controlled circuit
arrangement and circuit arrangement for execution of the
5   method

In the case of devices with a program-controlled circuit
arrangement operating program instructions are necessary
for their operation. In order to reduce the storage space
10   necessary for this, in the case of devices which have a
connection (6) to a data transmission network (7) in any
case, the operating program instructions are not held in
the device, but loaded via the data transmission network
(7). For this purpose the circuit arrangement (1) has a
15   start procedure memory (3), in which is stored a start
procedure set up in such a way that for its execution a
processor unit (2) connects up via the data transmission
network (7) by means of the interface (6) to an operating
program server and from this loads operating program
20   instructions into a main memory (5) connected to the
processor unit (2). The storage space required for the
start procedure memory (3) can be further reduced, if the
start procedure embedded in it is set up so that the
processor unit (2) loads the instructions, which are
25   necessary for connecting to the operating program server
and for loading from this the operating program
instructions, from a download procedure memory (4).

(Fig 1)

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